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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/487,729	01/19/2000	Baik-hee Han	Q57577	3502

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EXAMINER

NATNAEL PAULOS M

ART UNIT PAPER NUMBER

2614

DATE MAILED: 05/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/487,729

Applicant(s)

HAN, BAIK-HEE

Examiner

Paulos M. Natnael

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. After further reconsideration, the final rejection has been withdrawn and a new non-final action follows. Examiner regrets the convenience this might cause the applicant.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1,5**, are rejected under 35 U.S.C. 102(e) as being anticipated by Shim, U.S. Pat. No. 6,344,882.

Considering claim **1**, Shim discloses all claimed subject matter, note;

a) the claimed key input for inputting a channel number according to a user's selection, is met by Key Matrix 15, (Fig. 6).

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b) the claimed a tuner for tuning to a channel corresponding to the channel number selected by the key input, among received broadcasting signals, is met by Tuner 11, (Fig. 6);

c) the claimed a signal processor for processing a composite video signal of said channel tuned and output from the tuner, is met by IF signal processing unit 12, (Fig. 6);

d) the claimed a memory for storing the channel number is met by Memory 17, (Fig. 6);

e) the claimed a controller for receiving the channel number output from the key input and storing the channel number output from the key input in the memory while controlling the tuner to tune to a broadcasting channel corresponding to the received channel number, is met by Microcomputer 18, (Fig. 6).

f) the claimed wherein the controller receives the signal output from the signal processor, determines whether a broadcasting signal is present in the currently tuned broadcasting channel and, stores the corresponding broadcasting channel number in the memory only if a broadcasting signal is present, is met by the disclosure that "A synchronization detection unit 15 to detect the synchronous signals outputted from intermediate frequency signal processing unit 12 in order to discriminate whether there exist any broadcast signals at the time of channel switching and supply them to microcomputer 18. Microcomputer 18 outputs a series of tuning data from the automatic channel storage mode to tuner 11 and drives simultaneously the speed-up

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drive units 19 and 20 for high speed tuning. "Microcomputer 18 discriminates whether there exist any broadcast signals on the pertinent channel on the basis of the IF AGC supplied from intermediate frequency signal processing unit 12 through the level shifter 22. If a broadcast signal is discriminated, then microprocessor 18 stores such channel data in the memory 17. (Col. 6, lines 43-58) {emphasis added by examiner}

Considering claim 5, see rejection of claim 1, (claim 5 being different only by the single word "automatically" storing the channel number, in limitation number 5).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **3,4, 7 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shim et al. U.S. Patent No. 6,344,882 in view of Hamadate, U.S. Patent No. 5,969,769.

Considering claim 3, Shim discloses the following claimed subject matter;

c) the claimed a display for displaying a signal output from the mixer is met by CPT 14, Fig. 6.

Except for;

- a) the claimed a character signal generator for generating a character signal for indicating memorization of the channel number selected by the key input.
- b) a mixer for mixing a signal output from the signal processor with a signal output from the character signal

Regarding a) and b), Shim et al. does not specifically disclose a character signal generator and mixer for mixing those signals from signal processor 12 and characters generated from a generator. However, it notoriously well known in the art of television broadcasting to display the channel selected by the user for the viewer's convenience, i.e., in order to check the correctness of the selected channel number. It is also well known in art of television that such character display is superimposed on the video image.

Hamadate discloses a television set having a multiple-division screen. Hamadate disclose a character generating part 116, (fig.1) which generates and outputs characters to be selected by the switching part 106 and then superimposed on the image displayed on the displaying part 112 (fig.1).

Therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the system of Shim et al by providing the character generating part of Hamadate in order to generate desired characters and display the characters on the display 14, so that the viewer would be able for example check whether the selected channel number is the correct or desired channel number.

Considering claim 4, the claimed wherein the controller controls the character signal generator to generate a current broadcasting channel number and a character signal indicating memorization of the channel number so that said user can easily identify the memorized broadcasting channel is met by the Microcomputer 18. (see also rejection of claim 3)

Considering claim 7, see rejection of claim 3.

Considering claim 8, see rejection of claim 4.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Suizu, U.S. Patent No. 5,087,977 discloses a channel selecting apparatus automatically detecting different modes of television signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMN  
April 30, 2004



**PAULOS M. NATNAEL**  
**PATENT EXAMINER**